

ON QUEENSLAND AND OTHER AUSTRALIAN LEPIDOPTERA, WITH DESCRIPTIONS OF NEW SPECIES.*

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I am indebted to Mr. G. Barnard, whose collection I had the pleasure of inspecting during a most pleasant visit, and to Mr. R. Turner for much of the information contained in this paper. By their assistance I have been able to describe forty-two, which I believe to be new species, and record localities for other rare species.

Family SPHINGIDÆ.

SPHINX EREMOPHILÆ, Lucas, "Queenslander," April, 1891.

As this species is so nearly allied to *S. marmorata*, and as the caterpillars were found feeding together by Mr. Barnard, I repeat the description here for comparison; the descriptions of both were first sent to this Society in July, 1890.

♂♀. 58-70 mm. Palpi grey. Antennæ grey, reddish beneath. Head dark fuscous. Thorax fuscous, shoulders and epaulettes grey. Abdomen cinereous grey, with a dark brown line down the centre of dorsum, and deep dark brown angulated lateral lines; base of segments rich fulvous brown, deep brown angular patches extend from sides to dorsum, between base of each centre segment and next segment. Forewings triangular, elongate, costa nearly straight, rounded toward apex, hindmargin obliquely rounded; fulvous grey, with darker shadings and with darker fulvous broken bands, not always clearly defined; 1st band in central

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third of wing at $\frac{1}{8}$ is shaded off toward base, and becomes diffused toward costa; 2nd and 3rd bands rise from one stalk at $\frac{1}{6}$ to $\frac{1}{5}$ inner margin, which divides into two in a curve to $\frac{1}{3}$ and $\frac{2}{3}$ costa, and in some cases splits into three or four bands on costa; an interrupted ill-defined band rises at $\frac{2}{3}$ inner margin, and unites with a darker band from $\frac{3}{4}$ inner margin, at first outwardly, then inwardly, to $\frac{3}{4}$ costa; a lighter brown space separates this from the next band, which runs nearly parallel from $\frac{4}{5}$ inner margin to $\frac{5}{5}$ costa; cilia grey, brown at base and on veins. Hindwings grey-brown with shades of dark fulvous, darker toward hind-margin.

Caterpillar slender, attenuated anteriorly; blue grey, speckled with grey; stomata red; dorsal and lateral bands vermilion-red, in interrupted patches; tail black.

Found in large numbers by Mr. G. Barnard at the Dawson River, feeding on the *Eremophila Mitchelli*, locally known as sandalwood.

SPHINX MARMORATA, sp.nov.

♀. 60 mm. Head grey, collar black. Palpi blackish-grey. Antennæ brown. Thorax hairy, mottled grey and white. Abdomen ochreous, dorsal and lateral lines black, lateral lines connected by dark black lines with base of each segment, and so forming a square figure in each segment, on either side of dorsum, or an oblong of ground colour, which gives a singular marbled appearance to the insect; anal segment irrorated grey and white; underside light grey. Forewings elongate, triangular, costa nearly straight, apex rounded, hindmargin obliquely rounded; grey, irrorated with white near base, and with fuscous near costa: two oblique fuscous diffused lines from $\frac{1}{5}$ inner margin to apex of costa, and from $\frac{2}{3}$ inner margin to apex of hindmargin: veins beyond first line brown, four or five black arrow-shaped lines between veins; cilia white with smoky-grey spots on veins. Hindwings light brown, light ochreous-grey at base: veins smoky-grey.

Caterpillar attenuated anteriorly, glaucous-green, dorsal and lateral lines white, latter with tooth-like projections into each

segment; tail annulated green and brown. Found in company with preceding by Mr. Barnard on *Eremophila Mitchelli*. Five caterpillars, only one of which matured to imago. Allied to *S. Eremophila*, but easily distinguishable by marbled appearance of abdomen, and by darker colour and fuscous bands on wings.

Duaringa, Queensland.

Family ARCTIADÆ.

CALLIGENIA PILCHERI, sp.nov.

♂♀. 17-19 mm. Head and palpi vermilion, collar marone-red. Antennæ grey, vermilion at the base. Legs vermilion, grey on under side. Thorax deep marone-red, with anterior border behind collar ochreous-yellow, base of epaulettes yellow. Abdomen vermilion. Forewings elongate, strongly dilated, costa moderately arched, apex obtuse, hindmargin obliquely rounded; deep marone-red, with ochreous-yellow spots; an irregular square spot at $\frac{1}{5}$ costa extends to $\frac{2}{3}$ towards inner margin, costal half vermilion: between this and inner margin is a small dot posteriorly; adjacent to it, from $\frac{2}{5}$ of inner margin, an irregular row of six spots runs to just before apex of hind margin, but sixth spot does not touch hindmargin; the inner margin of first spot is vermilion; a conspicuous spot at $\frac{3}{5}$ costa; two spots on hindmargin in a line with hindmarginal sub-apical spot: cilia marone-red tipped with vermilion. Hindwings with basal half vermilion, posterior half rich marone-red; cilia marone tipped with pink.

Rockhampton; two specimens, caught by Mr. Pilcher.

CALLIGENIA MELITAUOLA, Meyr.; Townsville (Mrs. Barnard).

ASURA (?) BISECTA, sp.nov.

♂. 18 mm. Head velvety-black, collar ochreous-yellow. Palpi ochreous-yellow. Antennæ bipectinated, black. Thorax black with tip of epaulettes ochreous-yellow. Abdomen black, anal tuft ochreous-yellow. Forewings elongate, triangular, gently dilated, costa straight, hindmargin obliquely rounded; ochreous-yellow;

black at base and with a black band bisecting the wing from base to hindmarginal band opposite $\frac{1}{3}$ hindmargin, and with a dentate projection toward inner margin from middle : a broad black hindmarginal band : cilia grey. Hindwings ochreous-yellow, with broad black hindmarginal band, narrowed to a band of black hairs along inner margin, but more spread out at base ; cilia grey.

I think this species will have to be made into another genus, but place it here provisionally. I caught one specimen while out with Mr. Barnard, who had not seen it before.

Duaringa, Queensland ; in May.

Family HYPSIDÆ.

NYCTEMERA SECUNDIANA, sp.nov.

This species of *Nyctemera* was included in Meyrick's description of *N. tertiana*. I got specimens of both species and of *N. crescens* at Port Douglas, which I submitted to him. I believed with him at the time that both were varieties of one species, which he named new as *N. tertiana*. I now propose to separate the type as above from the type *tertiana*.

In *secundiana* the spot between the eyes and the two spots on the collar are prominent and deep black ; in *tertiana* they are faintly represented or altogether absent. In *secundiana* the epaulettes are longer, better developed, and the black stripes more prominently shown. In *secundiana* the white blotch in the hindwing is more a yellow-white and occupies less than one-third, extending from just before centre of wing with $\frac{1}{4}$ depth of wing hindmarginal border ; in *N. tertiana* the whole of the hindwing is more a snow-white, with an angular black border along hindmargin and costa.

N. secundiana is common at Brisbane, but though I have caught hundreds of *N. amica* and *N. secundiana*, I never caught the form with the hindwing so broadly white, and to which I propose to restrict Meyrick's name *tertiana*, in Brisbane. Mr. Barnard takes *N. secundiana* but never *tertiana* at Rockhampton.

Five species of *Nyctemera* run very closely. It will be interesting to obtain the history of caterpillars and food plants of all, to ascertain if they are non-interbreeding species, or if they are but climatic varieties. I may sum up the five as follows:—

N. annulata—very black, two small bars of dots in forewings, and one small dot in hindwings, white. New Zealand.

N. amica—broad bar of white divided by black veins in forewings, small round white spot in hindwings. Melbourne to Brisbane.

N. secundiana—broader bar of yellowish-white in forewing, much larger blotch in hindwing. Brisbane to Cooktown.

N. tertiana—forewing as *secundiana*, hindwing $\frac{2}{3}$ white with narrow black border. Mackay to Cooktown.

N. crescens—narrower white band in forewing; veins not black, in male a club-shaped white mark in middle third of wing, from base outward; hindwings as in *tertiana*. Mackay to Cooktown.

Family SYNTOMIDIDÆ.

HYDRUSA RECEDENS, sp. nov.

♂♀. 15-16 mm. Head orange, with a black mark between antennæ. Antennæ black. Thorax black, orange anteriorly, and with orange epaulettes. Abdomen iridescent, orange, with base of segments narrowly velvet black, apical segment orange, with broader black band at base, and fringe tipped with light smoky-grey. Forewings black; spots thinly scaled, light orange, and leaving the black ground colour only as bands or borders in three series; first, a clavate spot nearly touching inner margin at $\frac{1}{4}$ to half-way across wing, and projecting toward base; second series in the transverse middle third, nearly touching inner margin, but with a broad costal margin, divided by two lines into three, a subquadrate costal spot, a small central triangular spot, a broader triangular spot near inner margin; third series in posterior third of wing, divided into three bar lines parallel to costa, costal one longer than the other two. Hindwings black; spots light orange;

first spot thickly scaled, occupies basal third of wing; second spot in posterior third of wing almost touching costa.

Duaringa (Mr. Barnard).

Group BOMBYCINA, Family HEPIALIDÆ.

PORINA KERSHAWI, sp.nov.

♂. 70-80, ♀. 108 mm. Head and thorax ochreous-fuscous. Antennæ ochreous-fulvous. Abdomen ochreous-fulvous. Forewings elongate, costa slightly sinuous, hindmargin obliquely rounded in continuation with inner margin, light ochreous, with patches of fuscous and chains of creamy-white spots and dots edged with fuscous; costa dark fuscous in basal half, lighter posteriorly; a creamy-white longitudinal streak in disc from base to near hindmargin, along inner margin of vein 7; six rows of creamy-white spots, bordered with fuscous; 1st as a single dot on costal border, and a dot and line on inner border of discal streak at $\frac{1}{5}$; 2nd, dots and short bars from $\frac{1}{2}$ costa to $\frac{3}{5}$ inner margin; 3rd from costa at $\frac{2}{3}$; 4th from costa immediately beyond, and 5th immediately beyond again; all as necklaces of bead-like dots converge to a point in 2nd line near inner margin; 6th line from just before apex of costa to junction of inner and hindmargin is doubled at apex and in middle third; a sub-marginal row of dots of light ground colour bordered by a line of fuscous; veins fuscous: cilia fuscous. Hindwings ochreous-fulvous; veins browner fulvous; cilia ochreous-fulvous.

The ♀ is larger, more of a drab tint, and less fulvous, but the markings are similar to those in ♂. In some specimens the white bead dots are absent, in others they are only defined by the fuscous line rings.

Eltham and neighbourhood of Melbourne.

I have great pleasure in naming this species after the late Mr. David Kershaw, a young entomologist in Melbourne, from whom I received it, and who was cut off by a too early death from a zealous and useful career.

HECTOMANES FUSCA, sp.nov.

♂. 18-20 mm. Head, antennæ, thorax and abdomen fuscous, or fuscous-red. Forewings elongate, costa nearly straight, apex rounded, hindmargin rounded in continuation with inner margin, chocolate-brown or deep fuscous; costa darker fuscous, with a few dark spots; discal spot dark fuscous, almost black: cilia ochreous-fuscous. Hindwings smoky-fuscous; cilia as forewings.

♀. 26-28 mm. Head, thorax and abdomen light drab or ochreous-brown. Forewings, hind border more obliquely rounded than in ♂, grey-fuscous or dusty-drab—discal spot indistinct—a number of brownish dots, only seen with glass, give wing a dusted appearance. Hindwings coloured as forewings but without dots.

Moe, Gippsland, 1000 feet. Much smaller than *H. simulans*, Walk., from which it differs in colour and in entire absence of any white mark in disc; the forewings are broader than in that species.

HECTOMANES CROCEA, sp.nov.

♂. 26-28 mm. Head and thorax mahogany-red. Antennæ fuscous. Abdomen ochreous. Forewings with costa gently rounded, hindmargin rounded, continuous with inner margin, mahogany-red or saffron-red; small black discal dot: cilia mahogany-red. Hindwings ochreous-red or saffron-brown; cilia as forewings.

♀. 36-38 mm. Head and thorax a vermilion or brick-red. Abdomen ochreous. Forewings more a light vermilion-red, hind margin obliquely rounded to inner margin, discal spot smoke colour; in some specimens a number of smoky-grey dots scattered over wing and extending along hind and half way along inner margin: cilia vermilion-red. Hindwings ochreous; cilia vermilion red.

Brisbane.

The mahogany-red of the ♂ and vermilion-red of the ♀ distinguish this as perhaps the most showy of the genus.

HEPIALUS DAPHNANDRÆ, sp.nov.

♀. 80 mm. Length of body 48 mm. Head green, eyes red. Thorax green. Abdomen anterior third red, posterior $\frac{2}{3}$ green. Forewings broadly dilate, triangular, costa rounded towards apex, hind margin nearly straight; green with purple-brown spots along the costa, most developed in middle third, numerous indistinct transverse bluish short lines or dots and forming a continuous dark line broken between veins, from $\frac{3}{4}$ costa to $\frac{1}{2}$ inner margin: veins deeper green; small hindmarginal purple-brown spots between veins: cilia purplish-green. Hindwings with basal half and inner half vermilion-red, remainder of wing yellow-green; cilia olive-green.

From pupa on *Daphnandra micrantha*; allied to *H. Scotti*, Scott.

Brisbane.

This specimen is, I believe, small; other larvæ were promising to be much larger.

HEPIALUS HILARIS, sp.nov.

♂. 58-62 mm., body 34 mm. Head green. Antennæ red. Thorax ochreous-green, with dark green lines on dorsum and sides. Abdomen ochreous-green, with a long orange tuft on either side anteriorly. Forewings elongate sub-triangular, costa slightly sinuous, apex sub-falcate; hindmargin rounded in continuance with inner margin, light pea-green, crossed through entire length by bead-like ring and banded lines of milky-blue and light glaucous-green, enclosing ground-colour spots and lines, giving a very pretty mottled appearance; costa deep sea-green; a row of creamy-silvered spots from opposite $\frac{3}{4}$ costa, but not touching costa, to vein 2 opposite middle of inner margin; a faint row of bead-like milky-blue rings from $\frac{4}{5}$ costa to $\frac{3}{5}$ inner margin, a lunulated dentate like colour line immediately beyond and another sub-marginal with lunules concave and opposite to these: cilia olive-green. Hindwings milky-blue: cilia olive-green.

♀. 75-90 mm., body 45 mm. Head and thorax green. Antennæ red. Abdomen, anterior half red, posterior half green. Forewings pea-green, hindmargin very obliquely rounded; costa dotted with short purplish-red bars and dots, and hind and inner margins bordered with purplish-red line, interrupted near apex by veins; pea-green, and covered with narrow diffused rings of sea-green between veins, which, in contrast to the enclosed ground-green, gives the appearance of a tessellated pavement. This is more distinct and regular in posterior half, and is more irregular and faintly marked towards base. Two small discal spots of white, surrounded by purple-brown border lines, obliquely to each other at opposite $\frac{2}{3}$ costa: cilia ochreous-purple. Hindwings salmon-pink, apex of wing and hindmargin light olive-green; cilia olive-brown.

Gippsland; in stems of wattle and other trees; allied to *H. Scotti*, Scott.

Family LIPARIDÆ.

TEARA TOGATA, sp.nov.

♂. 40 mm. Head ochreous-brown. Palpi ochreous-brown, tipped with lighter brown. Antennæ ochreous, pectinations fuscous. Thorax rich ochreous-brown. Abdomen black, tipped with a fringe of ochreous-brown. Forewings with costa rounded from $\frac{2}{3}$, hindmargin obliquely rounded, inner margin from base to $\frac{2}{5}$, a large discal spot, and hindmarginal fourth of wing ochreous-brown, remainder of wing shining purple-grey: cilia light ochreous-brown. Hindwings light ochreous-brown, darker toward base and inner margin; cilia as forewings.

Allied to *T. Edwardsi*, Newm., and to *T. albidescens*, but readily distinguished by the purple-grey which shades forewings as a toga cloak.

Brisbane; two specimens.

TEARA FIMBRIATA, sp.nov.

♂. 24 mm. Head light creamy-drab. Palpi blackish-brown, tipped with creamy-white. Antennæ fuscous. Thorax fuscous.

Abdomen light creamy-drab. Forewings, costa rounded, hindmargin rounded; purple-grey, shining and darker posteriorly, bordered by an indented hindmarginal yellow band or fringe: cilia yellow. Hindwings and cilia creamy-drab.

Brisbane; one specimen; May, 1890.

DARALA EXPANSA, sp. nov.

♀. 118 mm. Head and antennæ creamy-ochreous, collar black. Palpi brown. Thorax drab, white, downy, resembling wool. Abdomen light fawn-colour with a ridge of light-coloured long hairs round base of each segment. Forewings triangular, broadly dilate; costa rounded, apex very acute, hindmargin rounded; fuscous with irrorationes of red or fuscous, and light fuscous and creamy-red scales; basal fifth drab-white or wool-colour, bordered by a smoke-colour line from $\frac{1}{6}$ costa to $\frac{1}{4}$ inner margin; a conspicuous rich black line from $\frac{3}{4}$ costa to $\frac{3}{4}$ inner margin, bordered posteriorly by a wool-colour suffused line; the ground-colour between 1st and 2nd lines is a darker fuscous, relieved with smoky-grey and brown suffusions; discal spot large, just before centre of wing at $\frac{1}{3}$ from costa, creamy ochreous, bordered with black; a broad suffused band of reddish cream-colour beyond 2nd line, bordered posteriorly by wavy crenulate undefined line of diffused brown, which suffusion extends to hindmargin; hindmarginal line and cilia smoky-brown. Hindwings ochreous-brown for basal fourth; creamy-ochreous to nearly $\frac{1}{2}$; a broad brown-ochreous band beyond $\frac{1}{2}$, bordered anteriorly with brown line and posteriorly with deep rich black line and a black suffusion; a creamy-red band, suffused with smoky-brown scales, and bordered posteriorly by a wavy crenulate black-brown line, and by a dark brown suffusion with smoke-colour scales to hindmargin; black patch on inner margin at $\frac{1}{4}$; cilia smoky-brown.

Dawson River; one specimen (Mr. G. Barnard).

DARALA MAGNIFICA, sp. nov.

♂. 70 mm, ♀. 100 mm. ♂. Head black, face grey. Palpi black. Antennæ white, pectinations black. Thorax brown,

covered with orange and white hairs, and posteriorly by a tuft of orange-tipped hairs on either side and with two small tufts of black and orange-tipped hairs on dorsum. Abdomen ferruginous-orange, and with extreme tip and underside white; legs black, femora with yellow spot on tip. Forewings, costa rounded toward apex, hindmargin rounded, grey with black markings and snow-white irrorations and diffusions; five transverse black-brown fasciæ, more or less interrupted; 1st from $\frac{1}{4}$ costa to near inner margin at $\frac{1}{4}$; 2nd immediately beyond; 3rd at $\frac{1}{2}$ costa, toward hindmargin, then deflexed and nearly straight across middle of wing to $\frac{1}{2}$ inner margin, this the broadest and richest coloured; 4th immediately beyond; 5th beyond this again, but interrupted and indistinct toward costa and toward inner margin; there is an irregular dentate crenulate interrupted hindmarginal fascia from just before apex of costa, to just before anal angle of inner margin; there is a black patch on costa at $\frac{1}{6}$, which is diffused into narrow lines, which disappear on wing; a rich black-brown band starts from 1st transverse fascia at $\frac{1}{4}$ from costa, and runs nearly parallel with costa to $\frac{1}{3}$ hindmargin; it contains a small-snow-white discal spot as it crosses 2nd fascia, and a large white discoidal spot as it crosses 3rd fascia; a similar band starts from 1st transverse fascia at $\frac{1}{3}$ from inner margin and runs parallel with inner margin to $\frac{2}{3}$ hindmargin; between this and the sub-costal band 3 parallel grey-brown bands occupy the space between the veins; cilia brown, white opposite the veins. Hindwings brown, with grey and smoky-white along outer half of veins; and along anal third of inner margin; some orange diffused hairs near inner margin; cilia as in forewings. Underside grey, with ferruginous in basal half of forewings, and towards costa, with rich black-brown band from $\frac{1}{2}$ costa of forewings to $\frac{1}{2}$ inner margin hindwings, where it is lost in black suffusion. Discal and discoidal spots are large on forewings, discal spot is small and white on band in hindwings; light-grey bands stretch across $\frac{3}{4}$ to $\frac{4}{5}$ of both wings.

♀ is larger, brown on face, the white hairs on head and thorax completely hide the ground-colour; the abdomen is ferruginous rather than orange; the forewings are irrorated and suffused with

white in basal third, and through posterior $\frac{4}{5}$; the middle third of hindwings is suffused with grey and white as a broad dentate fascia.

Dawson River, Queensland.

This beautiful species was brought to Mr. Barnard, Dawson River, by the blacks, who found caterpillars and chrysalises under bark of trees. I obtained a series of chrysalises of an allied species some years ago under the bark of a large gum tree near Deniliquin, N.S. Wales. Butler named the moth *D. stygiana*, and remarked that it was the finest species yet discovered. The species here described is half as large again as *D. stygiana*.

DARALA ASCISCENS, sp. nov.

♂♀. 96-110 mm. Head brown tinted with grey. Palpi black. Antennæ black. Thorax black. Abdomen black, with brown diffused laterally and posteriorly, grey on under surface. Forewings, costa rounded near apex, hindmargin nearly straight, smoky-grey with black markings and free irrorations of ashy-grey; an irregular wavy tortuous narrow fascia, brown-black, from $\frac{1}{5}$ costa to $\frac{1}{4}$ inner margin; the ground colour from this to base of wing is lighter drab-brown posteriorly, and as far as a rich black band extending from $\frac{3}{5}$ costa to $\frac{2}{3}$ inner margin the ground-colour is a darker grey, and is crossed irregularly near its anterior border by irregular interrupted patches of dark fascia; on anterior border of the black band at $\frac{1}{4}$ from costa is a prominent round white discal spot, bordered with black; from $\frac{4}{5}$ costa to $\frac{3}{4}$ inner border a narrow rich black sinuous line is bordered posteriorly with a more or less defined white line, another waved denticulate blackish line from just before apex of costa to just before anal angle of inner margin is bordered anteriorly by a conspicuous white line: cilia brown-grey. Hindwings drab, lighter toward base, and crossed by darker band $\frac{2}{5}$ costa to $\frac{1}{2}$ inner margin, and by 3 wavy dentate lines at $\frac{3}{4}$, the anterior smoky-grey, the middle lighter grey, and the posterior one white-grey; cilia as forewings. Underside light-grey with a brown band across both wings, from

$\frac{1}{2}$ costa forewing to $\frac{1}{2}$ inner margin of hindwing; a 2nd line, more sinuous, from $\frac{3}{4}$ costa of forewing parallel with hindmargin of both wings to $\frac{3}{4}$ inner margin hindwing. On front wing a brown dot is bordered by black and a conspicuous white spot is bordered by black; on hindwing there are two brown spots.

The ♀ is slightly larger than ♂ and somewhat lighter.

Dawson River (Mr. Barnard). Allied to *D. magnifica*. The cocoon is different, being as Mr. Barnard says a hanging cocoon, whereas that of *D. magnifica* is spun on to inner side of bark through its whole length.

DARALA LINEARIS, sp. nov.

♀. 60 mm. Head, palpi, antennæ, thorax, and abdomen light cinnamon-brown. Forewings, costa slightly wavy, apex slightly falcate; hindmargin rounded, shining cinnamon-brown sparingly dotted with scattered black points, and seven or eight straight transverse smoky-brown lines and fasciæ; two wavy lines at $\frac{1}{4}$ are more or less indistinct, and more or less run into each other; a sinuous line at $\frac{1}{3}$ is well marked and contains an indistinct small black discal spot at $\frac{1}{3}$ from costa; another line at $\frac{1}{2}$ and one immediately beyond are distinct, but faint; a very deep smoke-coloured band at $\frac{3}{4}$ costa to $\frac{4}{5}$ inner margin is bordered anteriorly by narrow edging of orange-brown, and suffused posteriorly into a deeper shade of ground colour, where it forms an indistinct bounding line; a sub-marginal line is faintly marked; an indistinct black discoidal spot just before band at one-third from costa: cilia cinnamon-brown, darker at base. Hindwings coloured as forewings, but not shiny; a smoky line at $\frac{1}{4}$ indistinct, a well-marked smoke-colour band at $\frac{1}{2}$; a broad smoke-colour fascia or suffusion from $\frac{3}{5}$ to near apex of costa, narrowing to one half its expansion toward inner border near anal angle; a series of minute sub-marginal black dots on veins; cilia as forewings.

Mackay; one specimen (Mr. R. Turner.)

DARALA SUCCINEA, sp.nov.

♂♀. 65-90 mm. Head, palpi, antennæ, thorax, and abdomen amber-coloured. Legs black-brown. Forewings, costa nearly straight, hindmargin obliquely rounded, amber-coloured; some specimens have a reddish tint, with smoky-black markings; an irregular diffused line, lunulated in middle 3rd toward hindmargin from $\frac{1}{4}$ costa to $\frac{1}{4}$ inner margin; a small smoke-colour discal spot beyond the middle of wing $\frac{1}{3}$ from costa; a straight red line curved inwards at costa from near $\frac{3}{4}$ costa to $\frac{1}{2}$ inner margin; immediately beyond and parallel is a crenulate smoke-colour line deepened into a spot on the veins: cilia ochreous-brown. Hindwings as forewings, first smoky line and red line less distinct, second smoky-colour line very defined; cilia as forewings.

The Wimmera, Victoria; taken by Mr. Hill.

DARALA SCORTEA, sp.nov.

♂. 62, ♀. 82 mm. Head, antennæ, thorax, and abdomen in ♂ ochreous-brown or the colour of chamois leather, in ♀ lighter chamois tint. Palpi in ♂ black-brown, in ♀ light chamois tint. Legs in ♂ black-brown, in ♀ colour of body, head of femur in both with a snow-white spot. Forewings, costa rounded toward apex, hindmargin rounded, in ♂ colour and appearance of chamois leather, in ♀ of a lighter more ochreous shade: an indistinct diffused smoky line at $\frac{1}{4}$ and another at $\frac{1}{5}$ costa, interrupted toward each other at $\frac{1}{3}$ from costa, whence they proceed as one line wavy and interrupted to $\frac{1}{3}$ inner margin, and thence to $\frac{1}{2}$ inner margin of hindwings; a pale fuscous discal spot in posterior line and another more distinct beyond middle of wing at $\frac{1}{3}$ from costa; a crenulate smoke-colour line pointed on veins, and bordered posteriorly with red from $\frac{3}{4}$ costa to $\frac{1}{2}$ inner margin: immediately beyond this a crenulate smoky-colour line, darker at veins, and diverges further apart toward inner margin: cilia reddish-brown. Hindwings as forewings, with the two median

lines from $\frac{3}{4}$ costa to close to first line at $\frac{1}{2}$ inner margin ; cilia as forewings.

Balranald, N.S. Wales ; two specimens.

Allied to *D. succinea*, but of a different texture, having a leathery appearance, and with the transverse lines differently coloured and arranged.

DARALA RUBRIScripta, sp.nov.

♂. 53 mm. Head, antennæ, thorax, abdomen brownish-yellow. Palpi light fuscous tipped with cream-white. Forewings, costa gently rounded, hindmargin rounded, brownish-yellow with shade of ochreous : four lines or fasciæ deep gamboge-brown, 1st from near base of costa for a short distance along costa, thence as an indistinct crenulate circular line to $\frac{1}{4}$ inner margin, a broad gamboge-brown band stretches from this first line along costa to beyond $\frac{1}{3}$, thence as a dentate circular line to near centre of wing, where it winds again toward base and runs to inner margin at $\frac{1}{3}$, costal half dark, inner half paler : a deep gamboge-brown line from a blotch at $\frac{2}{3}$ costa to $\frac{2}{3}$ inner margin : immediately beyond this and parallel is a light yellow-brown line, and beyond it again, a row of indistinct brown dots on the veins : cilia ochreous-brown. Hindwings coloured as forewings with three bands, 1st at $\frac{1}{4}$ indistinct, 2nd at $\frac{1}{2}$ a plain line, 3rd at $\frac{2}{3}$ crenate.

Mackay (Mr. R. Turner.)

DARALA ROSEA, sp.nov.

♂. 32 mm. Head, palpi, antennæ, thorax, and abdomen orange, thorax more tinted with rose-red, abdomen less so, tip cream-colour. Forewings, costa nearly straight, hindmargin rounded, orange-drab, with rose-red on the veins and minute black dots between veins : a dark line from near base, crossed by indistinct transverse smoky line at $\frac{1}{6}$, and extending to $\frac{1}{2}$ centre of wing, where it touches a smoky-colour fascia extending from $\frac{3}{4}$ costa to $\frac{1}{2}$ inner margin : a sub-marginal fascia smoky-black mixed with rose-red on veins : cilia cream-colour. Hindwings

orange, tinted with rose-red; cilia cream-colour. The ♀ is slightly larger, but similar.

I had a pair from Cooktown, but have lost the ♀. The rose-red veins render this species very distinct and beautiful.

Family SATURNIDÆ.

ANTHERÆA LORANTHI, sp.nov.

♂♀. 100-145 mm. Head, antennæ, thorax, and abdomen deep chocolate-brown. Collar deep smoky-brown. Forewings with costa rounded, apex rounded, hindmargin wavy, oblique, deep chocolate-brown. Costa at base deep smoky-brown, in a line continuous with collar, and gradually thinning out to $\frac{2}{3}$; discal ring in some specimens rather angulated, ovoid to rhomboid, consisting of a fine line externally black on outer border, brown on inner border, and lined on inner border with lighter brown, and an inner dark-brown ring lining outer border, which stretches for $\frac{2}{3}$ towards inner border and contains a lighter shade within; a broad band from $\frac{5}{6}$ costa to $\frac{3}{5}$ inner margin, deep smoke-colour with lighter smoky-grey on either border: cilia chocolate-brown. Hindwings coloured as forewings; discal rings more rounded, darker externally with lining of smoky-grey; a narrow band from $\frac{2}{3}$ of inner margin, in some few specimens smoky-grey, in most simply a darker ground-colour and almost obsolete, curving parallel to hindmargin toward $\frac{2}{3}$ costal margin, but in all cases losing its smoky-colour and in most becoming obsolete before reaching costa. Undersurface plain brown with discal rings as upper surface, and with veins prominent and brown.

Brisbane to Duaringa.

About a dozen years ago or more Mr. Illidge climbed a eucalypt tree, 40 yards high, on the bank of the Brisbane river on what is now known as the North Quay. He succeeded in obtaining a congregation of some 40 or 50 hard woody cocoons on a large plant of mistletoe, and was fortunate to breed out a good harvest of this moth. One specimen, Mr. Edwards informs me, found its

way to the British Museum, and is there labelled *A. Eucalypti*. Mr. Illidge distributed his find to the Museum and to others. Mr. Barnard and his sons at Duaringa also found this fine species feeding on *Loranthus*. It is thus necessarily a gregarious species, and in its habits, character, and in fact in all points differs from *A. Eucalypti*. It comes near to *A. Banksii*, Leach, or *A. Helenæ*, Scott.

A. intermedia, Luc., may be a climatic variety of *A. Helenæ*, but it is not nearly so large nor leathery as the Newcastle type.

Group GEOMETRINA, Family GEOMETRIDÆ.

IODIS IMPLICATA, sp.nov.

♀. 28 mm. Head blue, fillet white. Palpi grey. Antennæ red above, ochreous beneath. Thorax blue-green. Abdomen blue-green, laterally and posteriorly ochreous-green. Forewings, costa straight, rounded before apex, hindmargin gently rounded, dull blue-green, freely covered with faintly marked short transverse ochreous strigulæ; costa narrowly ochreous; two pale ochreous-green lines, first line from $\frac{1}{6}$ costa, angled outward near costa to $\frac{1}{4}$ inner margin; second line from $\frac{3}{5}$ costa to $\frac{3}{5}$ inner margin: cilia ochreous. Hindwings as forewings in colour, strigulæ, &c.; first line from $\frac{1}{4}$ costa as far as vein 4 opposite $\frac{1}{3}$ inner margin; second line from $\frac{2}{3}$ costa bent round on vein 3, parallel to hind border to $\frac{2}{3}$ inner margin; cilia ochreous, on inner margin blue-grey.

Rockhampton; one specimen (Mr. Barnard). Allied to *I. ocyptera*, Meyr.

IODIS BARNARDÆ, sp.nov.

♂♀. 11-15 mm. Head rufous-brown, fillet white. Palpi brown. Antennæ white, pectinations carmine. Thorax yellow in front, becoming greener, light green. Abdomen light green, ochreous beneath. Legs light brown, ochreous on under side. Forewings, costa nearly straight, hindmargin rounded, light green: an indistinct milky rounded line from $\frac{1}{3}$ costa to $\frac{1}{3}$ inner margin: beyond

this at $\frac{1}{4}$ from costa a minute brown discal spot: a second milky line from $\frac{2}{3}$ costa to $\frac{2}{3}$ inner margin: a dentate hindmarginal line deep purple-red: cilia grey, base purple-red. Hindwings as forewings, with first line wanting, discal spot very minute, second line $\frac{2}{3}$ costa to $\frac{2}{3}$ inner margin; hindmarginal line a series of purple-red spots; cilia as forewings.

I took a specimen at Duaringa station, beaten out of a wattle bush in May. I found Mr. Barnard had a pair in his collection unnamed. I am pleased to dedicate the species to Mrs. Barnard, who is so greatly aiding entomological science by her illustrations of life-history, larvæ, imago and food plant. I have this season obtained one specimen at Brisbane.

IODIS CRENULATA, sp. nov.

♂. 20 mm. Face red-brown, fillet and crown wool-colour white, posteriorly reddish-tinged. Palpi red, terminal joint ochreous-white. Antennæ white, pectinations ochreous-grey. Thorax olive-green, shoulders red-brown. Abdomen olive-green, underside whiter. Forewings with costa nearly straight, hindmargin obliquely rounded, olive-green; costa with a broad ochreous line attenuated to apex and bounded posteriorly by an orange-ochreous line, broadened at the base; five crenulate ochreous-green lines and parallel with hindmargin are arranged in two groups; the first line is from $\frac{1}{5}$ costa to $\frac{1}{5}$ inner margin, the second line is immediately beyond, just beyond which again and almost touching at $\frac{1}{3}$ from costa is an indistinct smoke-colour discal spot; the second group begins with the 3rd line, which runs from $\frac{2}{3}$ costa to $\frac{2}{3}$ inner margin, immediately beyond which is the 4th line, and again the 5th line, contiguous but not touching: cilia ochreous tinged with red. Hindwings with colour, the two groups of lines and cilia as in forewings.

Near Brisbane; one specimen; taken by Dr. T. Bancroft. This species is not nearly related to any with which I am acquainted.

IODIS MULTITINCTA, sp.nov.

♂. 22 mm. Head blue-green, fillet darker green. Palpi bluish-grey. Antennæ greenish-grey. Thorax blue-green. Abdomen blue-green, lighter posteriorly, and milky-colour underneath. Forewings with costa arched, hindmargin gently arched, blue-green, iridescent, with olive-green, blue-grey, milky-grey and slaty-grey scales all mixed in a kind of chameleon suffusion. A minute black discal spot, in some specimens indistinct, a suffused olive-green band from $\frac{1}{5}$ costa to $\frac{1}{3}$ inner margin, often indistinct, a suffused olive-green bar from $\frac{3}{4}$ costa to $\frac{2}{3}$ inner margin: cilia greenish-white, greener at base. Hindwings as forewings, angulated at vein 4, discal spot black, indistinct in most specimens, olive-green suffused band as in forewings, from $\frac{3}{4}$ costa to $\frac{2}{3}$ inner margin, arched and bent opposite hindmarginal bend at vein 4; cilia greenish-white, greener at base.

Brisbane; rare.

This species is a most delicate one, and is difficult to obtain at all perfect. I have not yet seen the ♀. It comes near *I. centrophylla*, Meyr.

IODIS MILITARIS, sp.nov.

♂♀. 26 mm. Head brownish-red, fillet light green. Palpi brownish-red. Antennæ ochreous-brown. Thorax light green. Abdomen light green, whiter at sides, with golden dots bordered with copper-red on dorsum, finer in ♂ than ♀. Forewings with costa gently arched, hindmargin obliquely rounded, very light pea-green; costa edged with a fine ochreous line with six or seven very fine deep chocolate or blackish dots; a small deep chocolate or blackish discal dot at $\frac{2}{5}$ one-third from costa, a second dot at $\frac{4}{5}$ one-fourth from costa: cilia creamy-ochreous with fine chocolate or blackish dots on veins. Hindwings as forewings, hindmargin rounded on vein 4, discal spot as in forewings at $\frac{2}{5}$, $\frac{1}{2}$ from costa; cilia creamy-ochreous with chocolate or blackish dots on veins, more conspicuous than in forewings.

Brisbane; two specimens. Allied to *I. leucomerata*, Walk.

AGATHIA IODIODES, sp.nov.

♀. 22 mm. Head black, face blackish-red. Palpi ochreous. Antennæ ochreous, becoming red toward base. Thorax pea-green, posteriorly on dorsum a red-white line bordered by deep red. Abdomen grey with red blotch and central line anteriorly, and a narrow red line thinning out posteriorly. Forewings rounded, costa rounded, apex rounded, hindmargin rounded, pea-green; costa bordered by black-red line freely irrorated with black scales, broader from $\frac{3}{5}$ to $\frac{3}{4}$, at each of which points is a black spot; the hindmarginal band is black-red and contains six ochreous dots, and is broadened into a projecting angle at $\frac{1}{2}$ and diffused into an oblong blotch at anal angle: cilia reddish-white. Hindwings pea-green with hindmarginal band and cilia as in forewings; hindmargin rounded at vein, the band projecting inward in an angle.

Dawson River; one specimen (Mr. Barnard).

This species at first appearance reminds one of a half-sized ordinary *Agathia*, with the bands in the forewings wanting, excepting in the margins.

AGATHIA DISTRIBUTA, sp.nov.

♂♀. 28-32 mm. Head pea-green, face red, collar light ochreous-red, with red dots anteriorly in centre, on either side and posteriorly. Palpi ochreous-grey. Antennæ red, ochreous beneath. Thorax pea-green, with an oval black patch posteriorly on dorsum and containing a small oval pea-green centre posteriorly; hairs on either side of thorax posteriorly brownish-red. Abdomen ochreous, dorsum black-red, narrowing posteriorly, anal 3rd ochreous. Forewings with costa rounded, apex acute, hindmargin gently rounded, bright pea-green; costal margin with a brown-red border freely irrorated with ochreous scales; a black-red basal fascia: an ochreous-green line from $\frac{2}{5}$ costa to $\frac{1}{2}$ inner margin, expanded to enclose three black red spots, one at costa, second almost touching first, and third on inner border: a

2nd line $\frac{3}{4}$ costa to anal angle, with an oblong attenuated spot on costa, a second rhomboid spot almost touching, and a minute dot close to hindmargin at $\frac{1}{5}$; a black red spot in apex of wing; a terminal hindmarginal black-red line, expanded into dots on veins: cilia reddish-ochreous, with reddish dots and a black red spot at $\frac{2}{5}$. Hindwings coloured as forewings; a broad ochreous line from apex of costa to $\frac{1}{5}$ hindmargin, bordered externally by a black-red line, broadened at apical angle into an elongated spot, into another elongated line or succession of dots just before hindmargin; a hindmarginal black-red line, in some interrupted, and bordering but separated from a black-red angular spot at vein 4, in some specimens diffused over anal angle and extending round inner margin, in others more or less absent; cilia ochreous with black-red dots opposite spots, on inner margin whitish-ochreous, anal half reddish-brown.

Cairns, and Dawson River (Mr. Barnard).

This differs from *A. lycanaria* in the fascia being narrow, differently distributed, and in the absence of the broad band on hindmargin. It is also allied to *A. letata*, Fab.

HYPOCHROMA AURANTIACEA, sp.nov.

♂. 40 mm. Palpi blackish-grey. Antennæ dark grey. Head grey. Thorax grey, with darker spot in centre anteriorly. Abdomen blue-grey, with short black lines on either side of dorsum on each segment, yellow laterally, yellow on underside. Forewings with costa nearly straight, hindmargin gently rounded, blue-grey with darker grey, smoky and black scales and suffusions; lines black, a waved line close in to base; a diffused line at $\frac{1}{5}$ inner margin becoming obscure just before costa at $\frac{1}{6}$; a fine rich black line dentate and wavy from $\frac{1}{4}$ costa to $\frac{1}{3}$ inner margin; a second rich black fine line from $\frac{2}{3}$ costa, dentate to half across wing, thence sharply twice angulated toward base and thence again dentated to $\frac{1}{2}$ inner margin, a short line branches from centre of this line to just before costa at $\frac{1}{2}$; two suffused grey wavy lines beyond this and parallel to hindmargin, a fine black sub-marginal

crenate line ; costa and inner margin darker suffused-grey : cilia grey. Hindwings as forewings, with basal half of inner margin yellow : a wavy crenulate line from $\frac{1}{2}$ costa to $\frac{1}{2}$ inner margin, a crenate sub-marginal finely defined black line, a suffused not distinct line at $\frac{1}{5}$, and another suffused indistinct line before the sub-marginal line—wing with dark suffusions toward base ; cilia grey. Undersurface : forewings orange at base attenuated toward apex beneath costa ; costa grey with black dots, a deep band of black filling outer third of wing, with apex grey and cilia grey ; and three or four small grey dots near inner margin ; a triangle of white, subtended by costa, and upper half of black band, occupies upper half of wing beneath costa and contains a deep black spot near its base—between this and inner margin a triangle of smoky-grey ; inner margin lighter grey. Hindwing orange in basal half, outer half deep black bordered on either side with light-grey.

Brisbane ; two specimens on trees.

Allied to *H. muscosaria* ; but the sharp defined markings and the orange of the body and hindwings readily distinguish it.

HYPOCHROMA DIFFUNDENS, sp.nov.

♂. 30 mm. Head, thorax, and abdomen smoky-grey. Antennæ black. Legs irrorated black and white. Forewings with costa sinuous, apex acute, hindmargin crenulate ; grey with white scales predominating near the centre, brown scales near the base, and smoke-colour scales on hind border ; costa smoke-coloured, with numerous minute grey and black dots : an indistinct grey transverse line near base : a rich black line from $\frac{1}{3}$ costa to $\frac{2}{5}$ inner margin, curved outwards anteriorly and inwards posteriorly : immediately beyond this is a smoke-colour line, then an elongated linear discal spot, and again a fine rich black line from $\frac{3}{4}$ costa to just before anal angle of inner margin, twice curved outwards and dentate in centre : this line is bounded on outer edge by a fine white line : a second dentate white line just beyond $\frac{5}{6}$ costa to half way across wing, where it is submerged in a series of smoky-grey spots, which extend from costa just beyond to anal angle of inner

margin ; hindmarginal line fine black : cilia alternately grey and white. Hindwings as forewings, basal line indistinct : 2nd line indistinct smoky-grey : discal spot rich black, elongated : 3rd line fine rich black, from $\frac{2}{3}$ costa to just before anal angle of inner margin, twice waved ; veins smoky-grey ; hindmarginal line rich black ; cilia as forewings. Undersurface white-grey : discal spot an elongated black line : a fascia in posterior third bounded by fine rich black line on inner side, contains rich black suffused spot on inner third, but diffused smoky-grey toward hindmargin, where it is bordered by black marginal line. Hindwings, discal spot a deep black lunule : fascia in posterior third deep black bordered by black line anteriorly and indented in centre with veins deeper black, and enclosing on posterior border dark and light grey spots ; hindmarginal line black.

Dawson River ; one specimen (Mr. Barnard).

Family MONOCTENIADÆ.

XENOMUSA METALLICA, sp.nov.

♂. 32 mm. Palpi and antennæ fuscous-ochreous. Head, thorax, and abdomen ochreous-brown. Forewings, costa arched, hollowed in middle and arched to a point at apex ; hindmargin arched and rounded, ochreous-brown, with fulvous and smoky scales, and a general bronzy metallic gloss. Two fine fulvous-grey lines, 1st from inner margin just beyond base to just before costa at $\frac{1}{3}$, thence sharply angulated to costa at $\frac{1}{4}$; a very fine discal point beyond angle towards 2nd line ; 2nd line from $\frac{2}{5}$ inner margin to just before costa at $\frac{3}{4}$, thence more obliquely to costa at apex ; costa with a fine smoky line from $\frac{1}{2}$ to $\frac{4}{5}$; a smoky-grey spot at apex, and a smoky diffusion from 2nd line at near $\frac{3}{4}$ costa to anal angle : cilia smoky-brown. Hindwings with colours as forewings, with 1st line from $\frac{1}{3}$ costa to $\frac{1}{3}$ inner margin ; small smoke-diffused discal point, and 2nd line very faint or wanting ; cilia smoky-brown.

Brisbane ; one specimen ; at light.

Some five years ago I obtained a few specimens of *Xenomusa* which Meyrick named *X. monoda*, on the flowers of a shrubby verbenia in a garden at Upper Moe, Gippsland, Victoria, at a height of 1200 feet. I have not found it here, though it is highly probable I may. But in its place I have obtained this allied species, which is smaller and distinctly metallic.

MONOCTENIA DIGGLESARIA, Gn.

Of this species Meyrick says: "I have seen no insect agreeing with it; it appears to indicate a good and distinct species." I have received a specimen from Mr. Kershaw, which exactly answers to Guénée's description.

Family MICRONIADÆ.

ANTEIA CANESCENS, sp. nov.

♀. 26-31 mm. Head black. Palpi grey, very short. Antennæ white. Thorax and abdomen grey-white. Forewings with costa rounded, hindmargin gently rounded; white, sparingly dusted with grey scales, and numerous short water-grey strigulæ; costa thickly covered on basal $\frac{2}{3}$ with minute strigulæ; 1st fascia water-grey, broad, from $\frac{1}{4}$ inner margin not reaching to costa opposite to $\frac{5}{6}$, attenuated toward costa, darker toward borders; 2nd fascia from $\frac{3}{5}$ inner margin to near costa just before apex, attenuated toward costa and with white patches in median line; an interrupted strigulous crossed line from $\frac{4}{5}$ inner margin to before apex, a 2nd like line from just before anal angle of inner margin to a point just before apex of costa with 2nd fascia and 1st line; a hindmarginal line black from near apical angle to two-thirds wing, thence diffused grey: cilia white, edged with grey. Hindwings as forewings, 1st and 2nd fasciæ in a direct line with those on forewings; 1st near base, 2nd from $\frac{1}{2}$ inner margin to $\frac{1}{2}$ costa; a third fascia from $\frac{3}{4}$ inner margin to $\frac{4}{5}$ costa, attenuated at both extremities; two sub-marginal lines from near anal angle of inner margin, interrupted in short wavy strigulæ,

to a point just before apical angle ; vein 4 bent to angle with a black spot ; cilia as forewings.

Rockhampton ; two specimens (Mr. G. Barnard).

Group NOCTUINA, Family AGARISTIDÆ.

AGARISTA ALBAMEDIA, sp.nov.

♀. 52 mm. Head black with white spots on either side of eye and behind origin of antennæ. Palpi black, white laterally. Antennæ black and white finely annulated. Thorax black with white dots anteriorly. Abdomen black, base of segments grey. Forewings, costa slightly sinuous nearly straight, hindmargin rounded ; black with scattered minute white scales, chiefly near the base ; a white fascia from $\frac{3}{8}$ costa, contracted in middle of wing, thence extended in two oblong dots, and thence in a round dot to just before, but not touching hindmargin at $\frac{3}{4}$: a few white very fine short lines almost imperceptible from costa at $\frac{5}{8}$ to hindmarginal end of median fascia, apex of wing rounded, with white margin : cilia black. Hindwings black, median white band broad from $\frac{4}{5}$ inner margin for three-fourths extent of wing to opposite to $\frac{2}{3}$ costa ; apex of wing rounded, with white margin, divided by a dentate black prolongation into two portions ; cilia black.

Brisbane ; one specimen (Mr. Illidge) : Hills near Duaringa (Mr. Barnard).

AGARISTA SIMPLEX, sp.nov.

♂. 60 mm. Head black, spots at base of antennæ white. Palpi and antennæ black. Thorax black, with white dot on dorsum and on either side anteriorly. Abdomen black, tuft orange. Forewings elongate, costa rounded, hindmargin obliquely rounded, black with a median broad white band, from near but not touching costa at $\frac{1}{2}$ to $\frac{3}{4}$ extent of wing toward anal angle : cilia black. Hindwings black with a very fine white linear margin ; cilia white.

Queensland ; one specimen.

This differs from *A. Latinus* in the median white band of forewings, which is short, stumpy and straight-edged (not indented or crenulate as in *Latinus*), and not extending to inner margin ; there is not a white band with black dots as in *Latinus*, but only a very fine white linear margin. This may turn out to be a very striking variety of *Latinus*, but the wings all appear narrower and the markings are quite different.

AGARISTA TROPICA, sp. nov.

♂♀. 46-58 mm. Head black with brick yellow dots on either side of eyes and at base of antennæ. Palpi black, red-yellow laterally, and fringed with black hairs beneath. Antennæ black and yellow annulated. Thorax black, with base of epaulettes yellow. Abdomen, anterior third black, posterior two-thirds orange with base of segments narrowly black. Forewings, costa rounded, hindmargin obliquely rounded, black, with brick-yellow markings ; costa with fine yellow edge near base, and fine white margin at apex ; twelve brick-yellow spots arranged as follows : an arrow-shaped one in centre of wing near base, a triangle between its posterior portion and costa, a square just beyond and opposite costa at $\frac{1}{2}$, a group divided by black veins into three oblong spots between this and hindmargin, a rhomb divided into two oblong spots by black veins between these and costa and opposite $\frac{1}{5}$ costa, similar twin spots and oblong between these and middle of hindmargin, and twin rounded spots near costa just before apex : these latter are paler and of a blue tinge ; a row of hindmarginal white dots between veins : cilia black. Hindwings with basal fifth, a linear costal border, a broad hindmarginal border, and an oblong prolongation from costa at $\frac{1}{3}$ to vein 4, black ; middle third of wing orange or brick-yellow, irregularly dentate into the black of both borders, with black veins and the black prolongation from costa very conspicuous ; sub-marginal dots white ; cilia black.

This differs from *A. Donovani* in many particulars ; the number of spots in that species is 8, arranged in three couples and two

single spots, with two to four lighter dots or shadings present or absent. The spots in this species are larger and of a different colour to those in *A. Donovanii*, which are ochreous-white. The median band on the hindwings is as broad again in *A. tropica* as in *Donovani*, and has a *median black elongation subtended from costa*, which is absent in *Donovani*. The abdomen is different, the segments in *Donovani* being broadly black and narrowly ochreous-white, the anal segment orange dotted with black, while in *A. tropica* the anterior third is deep black, with the posterior segments deep orange narrowly based with black.

Tropical Queensland.

A. DONOVANI, Melbourne to Cape York.

AGARISTA CÆRULEOTINCTA, sp. nov.

♀. 36 mm. Head black, cream-colour round orbits. Palpi and antennæ black. Thorax black, with grey tufts anteriorly. Abdomen grey with linear grey tufts anteriorly and black bands through segments. Forewings, costa straight or slightly sinuous, hindmargin rounded; black with a purplish tinge and a few small blue spots over basal fifth: a white discal spot just before $\frac{1}{2}$ and nearer costa than inner margin, a white fascia divided into six spots by black veins, from $\frac{2}{3}$ costa to $\frac{2}{3}$ the depth of wing towards anal angle, the costal spot is elongated and with a grey or bluish tint; a minute speck near costa at $\frac{4}{5}$ and another immediately beyond, subtending two rows of minute white-blue dots on veins extending and meeting in anal angle of inner margin, and a linear dash of white at apical extremity of hindmargin: cilia white irrorated with purplish-brown. Hindwings rich black with a linear streak of blue in centre of base, and extending for fully a third the expanse of the wing; there are two white spots with a blue tinge, the smaller near the $\frac{1}{2}$ of inner margin, and the larger in the centre of the wing; there is a row of marginal white linear spots; cilia black, but white subtending white spots. Underside, base of wings to $\frac{1}{4}$ bright blue.

Mackay (Mr. Turner). Allied to *A. Semyron*, H. Sch., of Sumatra.

Family OPHIUSIDÆ.

OPHIODES PARCEMACULA, sp.nov.

♂♀. 65 mm. Head, thorax, and abdomen light ochreous. Palpi black-brown. Antennæ black. Forewings elongate, costa straight, apex rounded; hindmargin straight, light ochreous; a minute black spot at $\frac{1}{3}$, a deep black discal spot at $\frac{1}{2}$, a row of minute black dots between veins from $\frac{3}{4}$ costa to two-thirds across wing to opposite $\frac{2}{3}$ inner margin: a large black lunule at $\frac{5}{6}$ costa, subtending a curved line of brown aggregations of dots to $\frac{4}{5}$ inner margin; a sub-marginal line of minute dots, and a marginal faint brown line beyond: cilia ochreous-brown, with darker line at base. Hindwings ochreous-brown, shiny and tinted with ferruginous, with a deep black fascia from apex of costa extending to one-third along, but not touching hindmargin.

Brisbane and Dawson River.

This species comes near to *O. disjungens*, Walk., but it is a smaller insect, and differs in its uniformity of colour, the thorax, abdomen, and wings being a light ochreous, while in *disjungens* the thorax and forewings are dark fuscous, and the abdomen and hindwings orange. The markings in *parcemacula* are fewer, and the lines are differently distributed; while the hindmarginal band in the hindwings is scant in *parcemacula*, as compared to the broad band in *disjungens*, and which, in that species, extends to fully $\frac{3}{4}$ of hindmargin.

Family EUCLIDIDÆ.

FODINA GLORIOSA, sp.nov.

♀. 24 mm. Head black, annulet ochreous. Palpi black. Antennæ grey, ochreous beneath. Thorax black with a median transverse line and a line posteriorly ochreous, epaulettes black. Abdomen orange-ochreous, with a black spot on dorsum at base. Forewings triangular, dilate, costa slightly wavy, hindmargin nearly straight, reddish-ochreous with black markings: border of costa for basal $\frac{3}{5}$ ochreous, freely dusted with black scales and

edged with black line, in apical $\frac{2}{5}$ red-ochreous: a basal triangle of rich black, apex not touching costa at $\frac{1}{5}$, bordered on inner half by red-ochreous: a rich velvet-black patch is joined to basal triangle on inner margin, thence free to just before $\frac{1}{2}$ costa, where it bends over to just before $\frac{3}{4}$ inner margin, twice denticulate outwards and a lunar excavation inwards in middle third; a triangle with base almost touching costa at $\frac{1}{2}$ to $\frac{3}{5}$ reaches to two-thirds of wing obliquely towards anal angle: a broad sub-marginal band from close to costa beyond, narrowing toward anal angle: the ground-colour between these two patches is brick-red bordered with ochreous: a hindmarginal black line broadened into dots on the veins, bordered posteriorly by brick-red: cilia red and grey. Hindwings brick-red, with red-orange suffusion over anal half of hindmargin: a broad hindmarginal black band attenuated and divided toward anal angle into two lines, marginal one to vein 4 and enclosing a line of red-orange: a large black spot on inner margin close to but not touching hindmarginal line; cilia red and grey.

Duaringa; one specimen (Mr. Barnard.)

Group PYRALIDINA, Family PYRALIDIDÆ.

ENDOTRICA CROBULUS, sp. nov.

♂♀. 15-22 mm. Head golden. Palpi orange-brown. Antennæ ochreous-grey. Thorax fulvous. Abdomen dark fulvous. Forewings, costa straight, hindmargin gently rounded, chocolate-red with golden-yellow lines; costa with light minute yellow dots over middle two-fourths; basal fourth of wing darker chocolate, bounded by a golden line bordered on either side by chocolate black lines; middle two-fourths of wing lighter chocolate with small black discal spot, bordered with ochreous; a golden-yellow line from $\frac{3}{4}$ costa to $\frac{4}{5}$ inner margin, outwardly dentate in middle and bounded on either side by narrow black line; hindmarginal line golden-yellow: cilia golden-yellow. Hindwings as forewings, central third lighter chocolate with three light ochreous and

golden alternating lines; hindmarginal band and cilia golden-orange.

Peak Downs and Rockhampton (Mr. G. Barnard).

ENDOTRICHIA DISPERGENS, sp.nov.

♂♀. 22-26 mm. Head, palpi, thorax, abdomen, and legs reddish-chocolate. Patagia in ♂ very elongated. Antennæ ochreous-brown. Forewings with costa rounded, in ♂ square on apical fourth as if cut off, hindmargin rounded, red-brown intermixed with chocolate and purple, and freely dusted with minute black scales; costal edge interruptedly annulated with ochreous and black-brown dots; discal spot of diffused black near costa at $\frac{3}{5}$, a black line from $\frac{1}{4}$ costa to $\frac{1}{3}$ inner margin, lighter toward inner margin; cilia chocolate-grey. Hindwings purplish-brown, redder toward costa and lighter ochreous-red toward base; in ♂ a line tinted with black scales from $\frac{2}{3}$ costa to $\frac{1}{2}$ inner margin, in some specimens not very distinct, in ♀ there are two blackish lines from $\frac{1}{3}$ costa to just before $\frac{1}{2}$ inner margin, and from $\frac{2}{3}$ costa to $\frac{3}{4}$ inner margin plainer than line in ♂; cilia as forewings.

The ♀ is like some specimens of *E. pyrosalis* in general appearance, but is differently marked; the ♂ is specially distinct by the square tip of forewings.

Scrub near Brisbane; very rare.

CEDEMATOPHORA CACAALIS, sp.nov.

♂♀. 18-20 mm. Head, antennæ, thorax, and abdomen light cinnamon-brown. Palpi chocolate-red, long, ascending. Legs deep chocolate-red, lighter beneath. Forewings elongate, triangular, costa slightly arched in middle, hindmargin obliquely rounded, light cinnamon-brown dusted with fine black scales, and having apical third deep chocolate, narrowed toward anal angle of hindmargin: costal edge with minute chocolate dots, more scanty towards base; an indistinct darker brown mark extends from $\frac{1}{3}$ costa to $\frac{1}{5}$ inner margin: cilia deep chocolate. Hindwings light cinnamon-brown, crossed at regular distances by three black lines, the outer one being the least distinct; cilia purple-brown.

Brisbane; three specimens.